XXV. TERMINATION

359. This Addendum shall be subject to termination upon motion by the United States or Premcor under the conditions identified in Paragraph 363 below. Prior to seeking termination, Premcor must have completed and satisfied all of the following requirements of this Addendum:

a. Installation of control technology systems as specified in this Addendum;

b. Compliance with all provision contained in this Addendum, which compliance may be established for specific parts of the Addendum in accordance with Paragraph 360 below.

c. Payment of all penalties and other monetary obligations due under the terms of the Addendum; no penalties or other monetary obligations due hereunder can be outstanding or owed to the United States or the Plaintiff-Interveners;

d. Completion of the Supplemental Environmental Projects as set forth in Part XIX; and

e. Application for and receipt of permits incorporating the emission limits and standards required by Part XIV [Permits].

360. **Certification of Completion**. Prior to moving for termination, Premcor may certify completion for one or more Refineries subject to this Addendum of one or more of the following parts of the Addendum, provided that all of the related requirements for that Refinery have been satisfied:

i. Part V - NOx Emission Reductions from Fluid Catalytic Cracking Unit (including operation of the unit for one year after completion in compliance with the emission limit set pursuant to the Addendum);

ii. Parts VI, VII and VIII - SO_2 , CO, particulate and opacity Emission Reductions from Fluid Catalytic Cracking Unit (including operation of the unit for one year after completion in compliance with the emission limits set pursuant to the Addendum);

iii Parts IV and IX – Heaters and Boilers (including operation of the relevant units for one year after completion in compliance with the emission limit set pursuant to the Addendum);

iv. Parts X and XI – BWON and LDAR;

v. Part XII – SRPs and Flares

vi. Part XIX – Beneficial and Supplemental Environmental Projects

361. If Premcor elects to certify completion of any of the parts of the Addendum identified in Paragraph 360 for any Refinery subject to this Addendum, then Premcor may submit a written report to EPA and the appropriate Plaintiff-Intervener describing the activities undertaken and certifying that the applicable Parts have been completed in full satisfaction of the requirements of this Addendum, and that Premcor is in substantial and material compliance with all of the other requirements of the Addendum. The report shall contain the following statement, signed by a responsible corporate official of Premcor:

> "To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

362. Upon receipt of Premcor's certification, EPA, after reasonable opportunity for review and comment by the Plaintiff-Interveners, shall notify Premcor whether the requirements set forth in the applicable Part(s) have been completed in accordance with this Addendum. The parties recognize that ongoing obligations under such Part(s) remain and necessarily continue (*e.g.*, reporting, record keeping, training, auditing requirements), and that Premcor's certification, as applicable, is that it is in current compliance with all such obligations.

a. If EPA concludes that the requirements of such Part(s) have not been fully complied with in accordance with this Addendum, EPA shall notify Premcor as to the activities that must be undertaken to complete the applicable Parts of the Addendum. Premcor shall perform all

activities described in the notice, subject to its right to invoke the dispute resolution procedures set forth in Part XXIII (Dispute Resolution).

b. If EPA concludes that the requirements of the applicable paragraphs have been completed in accordance with this Addendum, EPA will so certify in writing to Premcor. This certification shall constitute the certification of completion of the applicable Parts for purposes of this Addendum. Nothing in this Paragraph 362 shall preclude the United States or the Plaintiff-Interveners from seeking stipulated penalties for a violation of any of the requirements of the Addendum regardless of whether a Certification of Completion has been issued under this paragraph. In addition, nothing in this Paragraph 362 shall permit Premcor to fail to implement any ongoing obligations under the Addendum regardless of whether a Certification of Completion has been issued with respect to this paragraph of the Addendum.

363. At such time as Premcor believes that it has satisfied the requirements for termination set forth in Paragraph 359, it shall certify such compliance and completion to the United States and the Plaintiff-Interveners in writing. Unless either the United States or any Plaintiff-Intervener objects in writing with specific reasons within 120 days of receipt of Premcor's certification under this paragraph, Premcor shall then move and the Court may order that this Addendum be terminated. If either the United States or any Plaintiff-Intervener objects to the certification by Premcor then the matter shall be submitted to the Court for resolution under Part XXIII (Dispute Resolution) of this Addendum.

364. The Effect of Settlement provisions set forth in Part XXIV shall survive termination of this Addendum.

XXVI. GENERAL PROVISIONS

365. Effect of Refinery or Source Shutdown. Notwithstanding any provision of this Addendum, the permanent shutdown of any source or refinery subject to any requirement of this Addendum shall satisfy any provision in this Addendum applicable to such source or refinery, and

Premcor shall not be obligated hereunder to continue operation of such source or refinery in order to institute or satisfy any requirement otherwise applicable to such source or refinery pursuant to the terms of the Addendum. The foregoing does not relieve Premcor's ongoing obligation to implement Part XIX [SEPs].

366. Other Laws. Except as specifically provided by this Addendum, nothing in this Addendum shall relieve Premcor of its obligation to comply with all applicable federal, state and local laws and regulations, including, but not limited to, more stringent standards. In addition, nothing in this Addendum shall be construed to prohibit or prevent the United States or Plaintiff-Interveners from developing, implementing, and enforcing more stringent standards subsequent to the Date of Lodging of this Addendum through rulemaking, the permit process, or as otherwise authorized or required under federal, state, regional, or local laws and regulations. In addition, except as otherwise expressly provided in this Addendum, nothing in this Addendum is intended to eliminate, limit or otherwise restrict any compliance options, exceptions, exclusions, waivers, variances, or other right otherwise provided or available to Premcor under any applicable statute, regulation, ordinance, regulatory or statutory determination, or permitting process. Subject to Part XXIV [Effect of Settlement] and except as provided under Part XX [Stipulated Penalties], nothing contained in this Addendum shall be construed to prevent, alter or limit the United States' and Plaintiff-Interveners' rights to seek or obtain other remedies or sanctions against Premcor available under other federal, state or local statutes or regulations, in the event that Premcor violates this Addendum or of the statutes and regulations applicable to violations of this Addendum. This shall include the United States' and Plaintiff-Interveners' right to invoke the authority of the Court to order Premcor's compliance with this Addendum in a subsequent contempt action.

367. Changes to Law. In the event that during the life of this Addendum there is change in the statutes or regulations that provide the underlying basis for the Addendum such that Premcor would not otherwise be required to perform any of the obligations herein or would have the option to

undertake or demonstrate compliance in an alternative or different manner, Premcor may petition the Court for relief from any such requirements, in accordance with Rule 60 of the Federal Rules of Civil Procedures ("F.R.Civ.P."). However, if Premcor applies to the Court for relief under this Paragraph, the United States and the Applicable Plaintiff-Interveners reserve the right to seek to void all or part of the Resolution of Liability reflected in Part XXIV [Effect of Settlement]. Nothing in this Paragraph is intended to enlarge the Parties' rights under Rule 60, nor is this Paragraph intended to confer on any Party any independent basis, outside of Rule 60, for seeking such relief. This Paragraph 367 does not apply to Premcor's obligation to complete the supplemental/beneficial environmental projects referred to in Part XIX of this Addendum.

368. Reserved.

369. Liability for Stipulated Penalties. Liability for stipulated penalties, if applicable, shall accrue for violation of such obligations, and payment of such stipulated penalties may be demanded by the United States or Plaintiff-Intervener, as provided in this Addendum, provided that stipulated penalties that may have accrued between the Date of Lodging of this Addendum and the Date of Entry of the Addendum may not be collected by the United States or any Plaintiff-Intervener unless and until the Addendum is entered by the Court.

370. Contractors. Except where expressly prohibited, Premcor may rely upon a contractor to fulfill its obligations under this Addendum. Where Premcor uses one or more contractors to comply with material obligations under this Addendum, Premcor shall ensure that the contractor is aware of and in compliance with the requirements of this Addendum.

371. Third Parties. Except as otherwise provided herein, this Addendum does not limit, enlarge or affect the rights of any party to this Addendum as against any third parties.

372. Costs. The United States, Plaintiff-Interveners and Premcor shall each bear their own costs and attorneys' fees.

373. Public Documents. All information and documents submitted by Premcor to the United States and Plaintiff-Interveners pursuant to this Addendum shall be subject to public inspection, unless (a) subject to legal privileges or protection or (b) identified and supported as business confidential by Premcor in accordance with 40 C.F.R. Part 2, or any equivalent state statutes and regulations.

374. Public Comments. The parties agree and acknowledge that final approval by the United States and the appropriate Plaintiff-Intervener and entry of this Addendum is subject to the requirements of 28 C.F.R. § 50.7, which provides for notice of the lodging of this Addendum in the Federal Register, an opportunity for public comment, and consideration of any comments.

375. Reserved.

376. Notice. Unless otherwise provided herein, notifications hereunder to or communications with the United States, the appropriate Plaintiff-Intervener, Premcor shall be deemed submitted on the date they are postmarked and sent either by overnight receipt mail service or by certified or registered mail, return receipt requested. When Premcor is required to submit notices or communicate in writing under this Addendum to EPA relating to one of the Premcor Refineries, Premcor shall also submit a copy of that notice or other writing to the applicable Plaintiff-Intervener for the refinery located in that state. Except as otherwise provided herein, when written notification or communication is required by this Addendum, it shall be addressed as follows:

As to the United States:
Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044-7611

United States Attorney
Western District of Texas
c/o U.S. Marshal Service
U.S. Courthouse
655 E. Durango
San Antonio, TX 78206

As to the U.S. Environmental Protection Agency:

Director
Air Enforcement Division (2242A)
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

with a hard copy to:
Director
Air Enforcement Division
Office of Enforcement and Compliance Assurance
c/o Matrix New World Engineering Inc.
120 Eagle Rock Ave., Suite 207
East Hanover, NJ 07936-3159

and an electronic copy to:
csullivan@matrixnewworld.com

With copies to the EPA Regional office where the relevant refinery is located:

EPA Region 4:

Director
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency,
Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104

EPA Region 5:

Director
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency,
Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

Compliance Tracker
U.S. EPA Region 5
77 W. Jackson Blvd
Mail Code: AE-17J
Chicago, IL 60604

EPA Region 6:

Chief
Air, Toxics, and Inspection Coordination Branch (6EN-A)

Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202

As to Plaintiff-Intervener, the State of Ohio:

Teri J. Finfrock, or her successor
Air Program Supervisor
Office of the Attorney General of Ohio
Environmental Enforcement Section
30 East Broad Street, 25th Floor
Columbus, Ohio 43215-3400

Don Waltermeyer
Environmental Supervisor
Ohio Environmental Protection Agency
Division of Air Pollution Control
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402

As to Plaintiff-Intervener, Memphis Shelby County Health Department

Bob Rogers, P.E.
Manager, Pollution Control
Memphis & Shelby County Health Department
Pollution Control Section
814 Jefferson Avenue
Memphis, Tennessee 38105

As to Premcor:

Mr. Norman Renfro, Vice President
Health Safety & Environment
The Premcor Refining Group Inc. and Lima Refining Company
One Valero Place
San Antonio, TX 78249

Richard Walsh, Esquire
The Premcor Refining Group Inc. and Lima Refining Company
One Valero Place
San Antonio, TX 78249

Bart E. Cassidy, Esquire
Manko, Gold, Katcher & Fox, LLP
401 City Avenue, Suite 500
Bala Cynwyd, PA 19004

377. All EPA and Plaintiff-Intervener approvals or comments required under this Decree shall be in writing.

378. Any party may change either the notice recipient or the address for providing notices to it by serving all other parties with a written notice setting forth such new notice recipient or address.

379. The information required to be maintained or submitted pursuant to this Addendum is not subject to the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501 et seq.

380. This Addendum shall be binding upon all Parties to this action, and their successors and assigns. The undersigned representative of each Party to this Addendum certifies that he or she is duly authorized by the Party whom he or she represents to enter into the terms and bind that Party to them.

381. Modification. This Addendum may be modified only by the written approval of the United States, the appropriate Plaintiff-Intervener and Premcor, or by Order of the Court. Additionally, it is anticipated that EPA, the appropriate Plaintiff-Intervener and Premcor may reduce the frequency or nature of reporting over time. Non-material modifications need not be filed with the Court to be effective, but material modifications shall be effective only upon filing with the Court. The United States will file non-material modifications with the Court on a periodic basis. For purposes of this Paragraph, non-material modifications include, but are not limited to, modifications to the frequency of reporting obligations and modifications to schedules that do not extend the date for compliance with emission limitations following the installation of control equipment or the completion of a catalyst additive program, provided such changes are agreed upon in writing between EPA and Premcor.

382. Continuing Jurisdiction. The Court retains jurisdiction of this case after entry of this Addendum to enforce compliance with the terms and conditions of this Addendum and to take any action necessary or appropriate for its interpretation, construction, execution, or modification. During the term of this Addendum, any party may apply to the Court for any relief necessary to construe or effectuate this Addendum.

383. This Addendum constitutes the entire agreement and settlement between the Parties. Prior drafts of the Addendum shall not be used in any action involving the interpretation or enforcement of the Addendum.

So entered in accordance with the foregoing this_____day of _____, 20__.

_____
United States District Court Judge
for the Western District of Texas

FOR PLAINTIFF, UNITED STATES OF AMERICA:

Date 8 Aug. 2007

RONALD J. TENPAS
Acting Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, DC 20530-00001

Date 8/14/07

SUSAN AKERS
Senior Attorney
SCOTT BAUER
KATHERINE KANE
Trial Attorneys
Environment and Natural Resources Division
U.S. Department of Justice
1425 New York Avenue, N.W.
Washington, DC 20005

FOR U.S. ENVIRONMENTAL PROTECTION AGENCY:

Date 25 May 2007

GRANTA Y. NAKAYAMA
Assistant Administrator
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

FOR PLAINTIFF, THE STATE OF OHIO:

MARC DANN
Attorney General of Ohio

By: _____ Date: 7/16/07
TERI J. FINEROCK
Assistant Attorney General
Environmental Enforcement Section
30 East Broad Street, 25th Floor
Columbus, Ohio 43215-3400

ATTORNEY FOR
PLAINTIFF
STATE OF OHIO

FOR PLAINTIFF-INTERVENER, THE TENNESSEE COUNTY OF SHELBY AND CITY OF MEMPHIS:

_____ Date: 5/16/07

YVONNE S. MADLOCK
Director
Memphis and Shelby County Health Department
814 Jefferson Avenue
Memphis, Tennessee 38105

FOR DEFENDANT, THE PREMCOR REFINING GROUP INC. and LIMA REFINING COMPANY:

Date 6/12/07

NORMAN L. RENFRO
Vice President
The Premcor Refining Group Inc. and Lima Refining Company
P. O. Box 696000
San Antonio, TX 78269-6000
Telephone: (210) 345-2790
Fax: (210) 345-4976

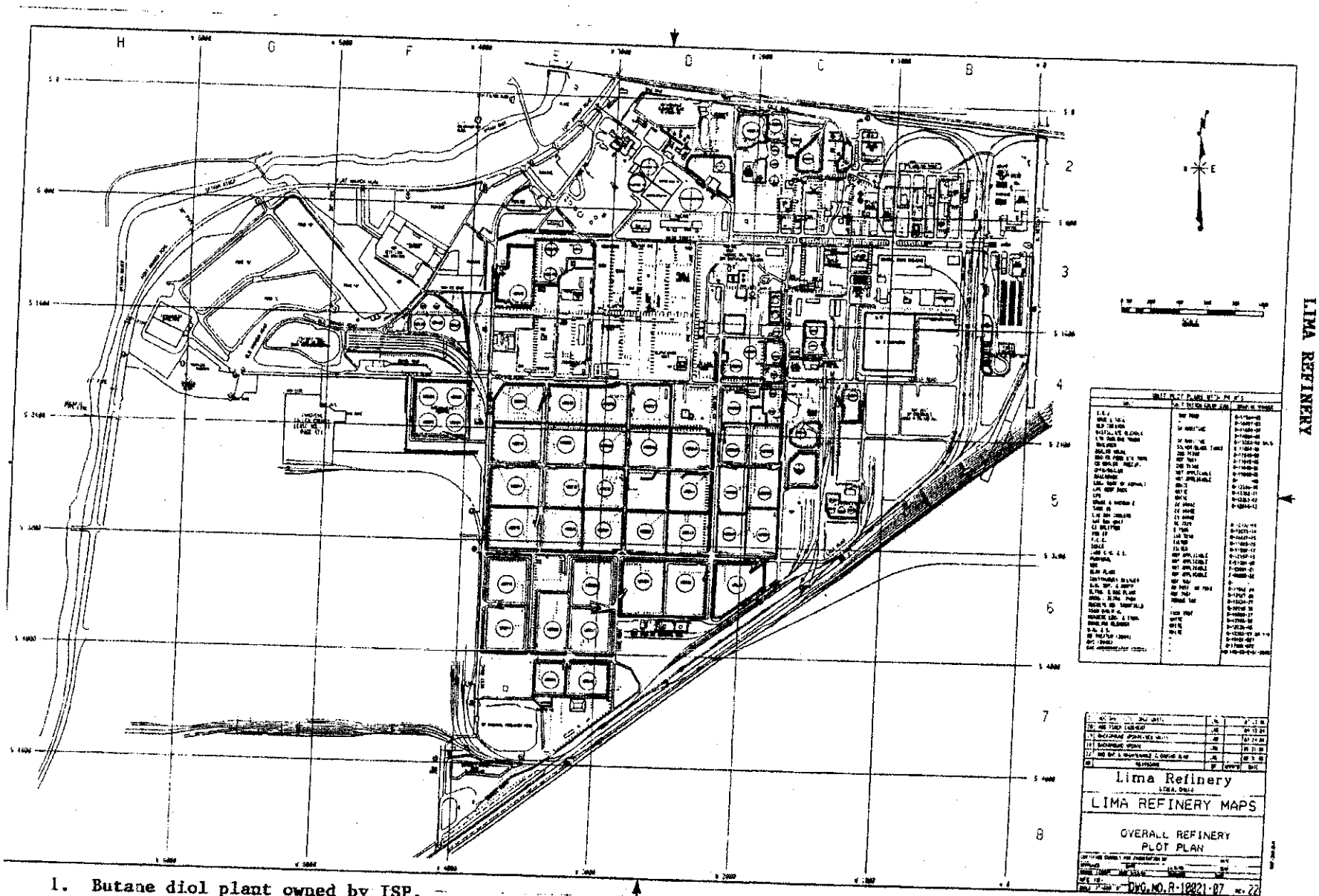
SUMMARY OF ATTACHED APPENDICES

Appendix A	Refinery Descriptions
Appendix B	Heater and Boiler Initial Inventory
Appendix C	FCCU Maximum Coke Burn Rate
Appendix D	Alternative Monitoring Plans for NSPS Subpart J Refinery Fuel Gas Guidance
Appendix E	SO_2 Catalyst Additive Protocol
Appendix F	AG Flaring Logic Diagram
Appendix G	Reserved
Appendix H	Reserved
Appendix I	Sustainable Skip Periods
Appendix J	Reserved
Appendix K	Acid Gas Flaring Devices
Appendix L	Reserved
Appendix M	Reserved
Appendix N	Hydrocarbon Flaring Devices
Appendix O	Specific Heater and Boiler NSPS Schedule
Appendix P	Reserved
Appendix Q	Schedule of Relevant Enforcement Matters
Appendix R	Mobile Source Provisions
Appendix S	PEM Requirements
Appendix T	Specific Emission Events

APPENDIX A
REFINERY DESCRIPTIONS

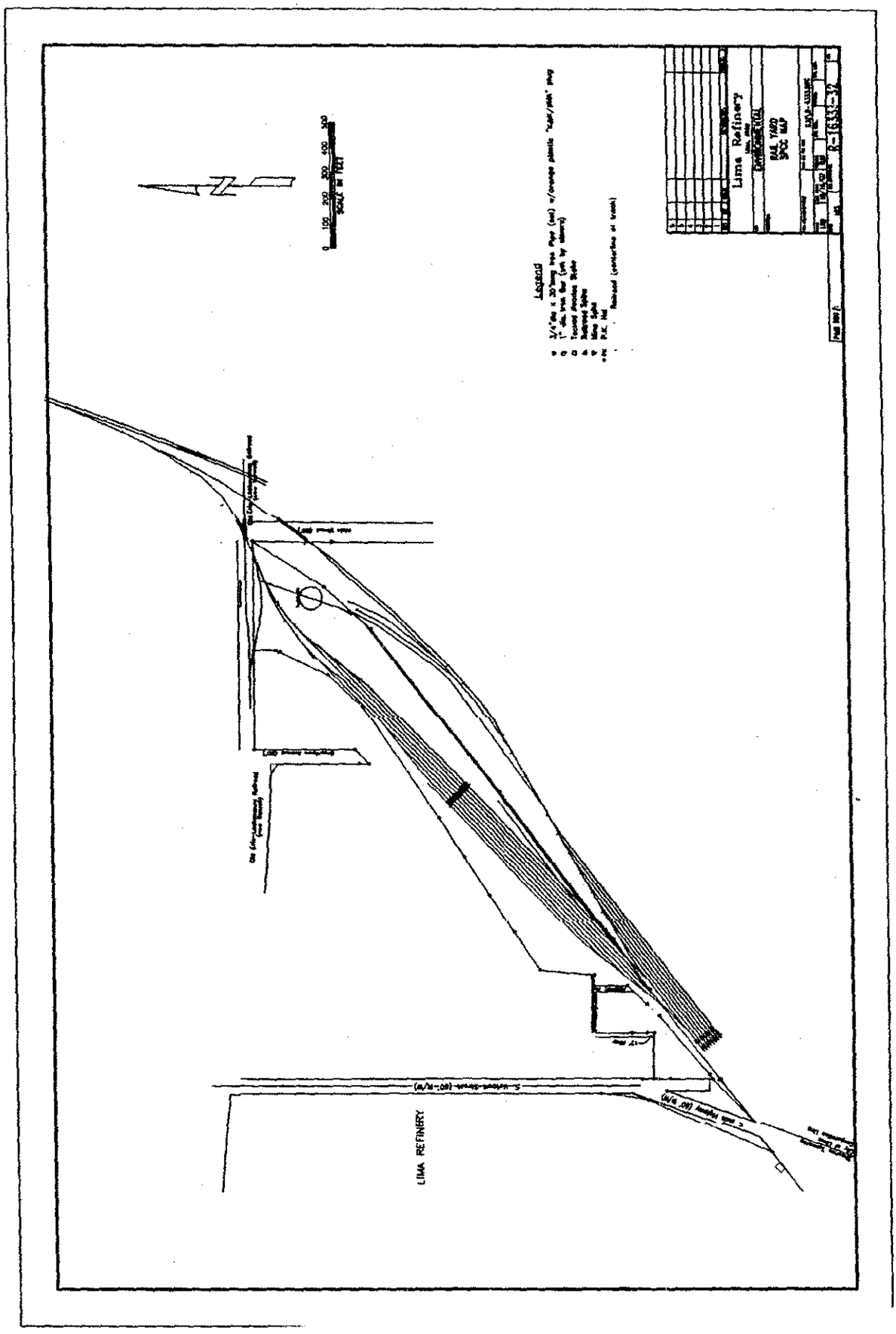
LIMA REFINERY

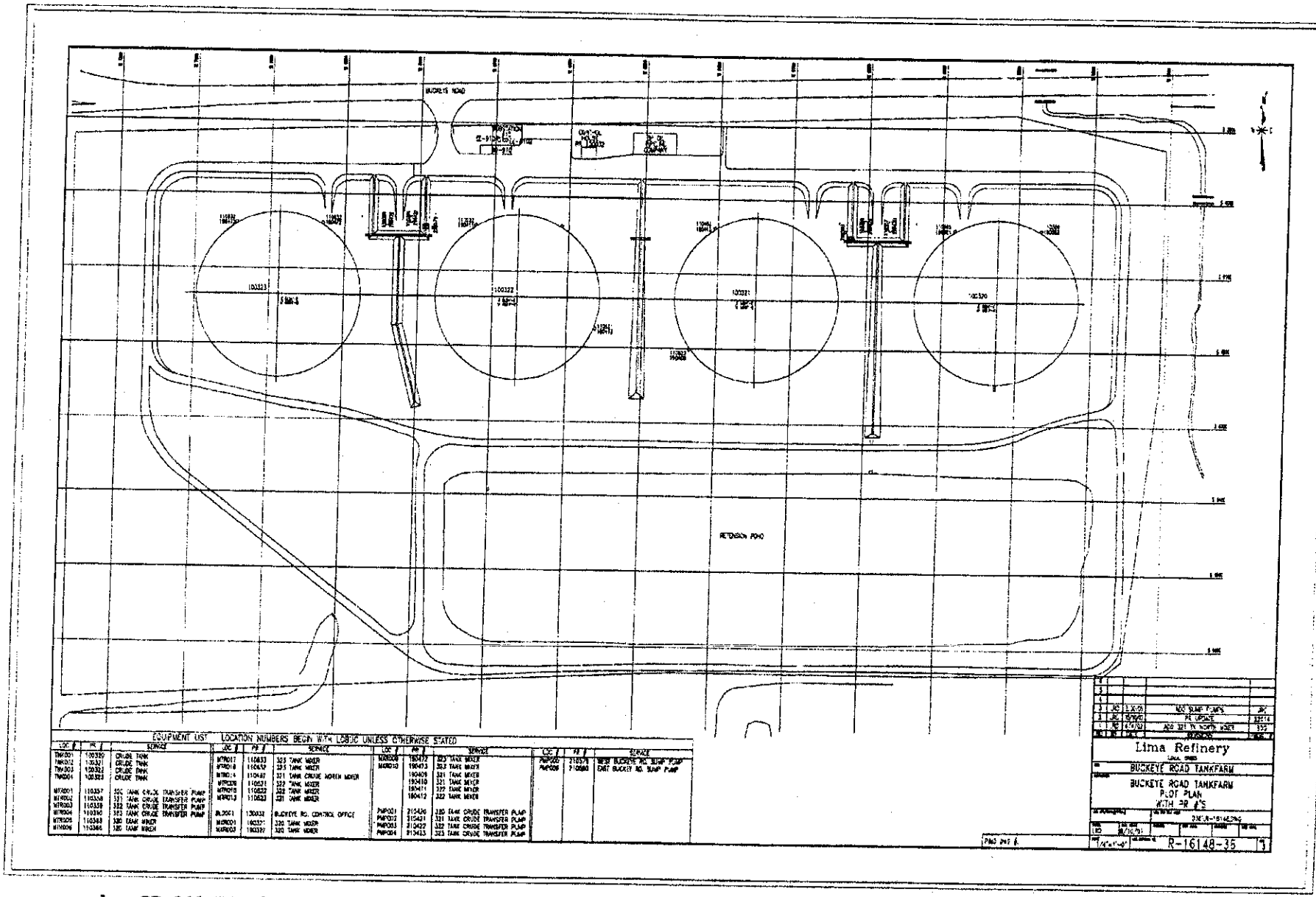
The refinery, currently owned and operated by Lima Refining Company, located in northwest Ohio approximately ninety (90) miles northwest of Columbus. The refinery property consists of approximately 650 acres. The address of the refinery is 1150 South Metcalf Street, Lima, Ohio. The refinery is bordered on the north and east by the town of Lima and to the west by the Ottawa River as shown generally in the attached plot diagram.



1. Butane diol plant owned by ISP.
2. Fire water pond owned by Ineos.

LIMA REFINERY RAIL YARD





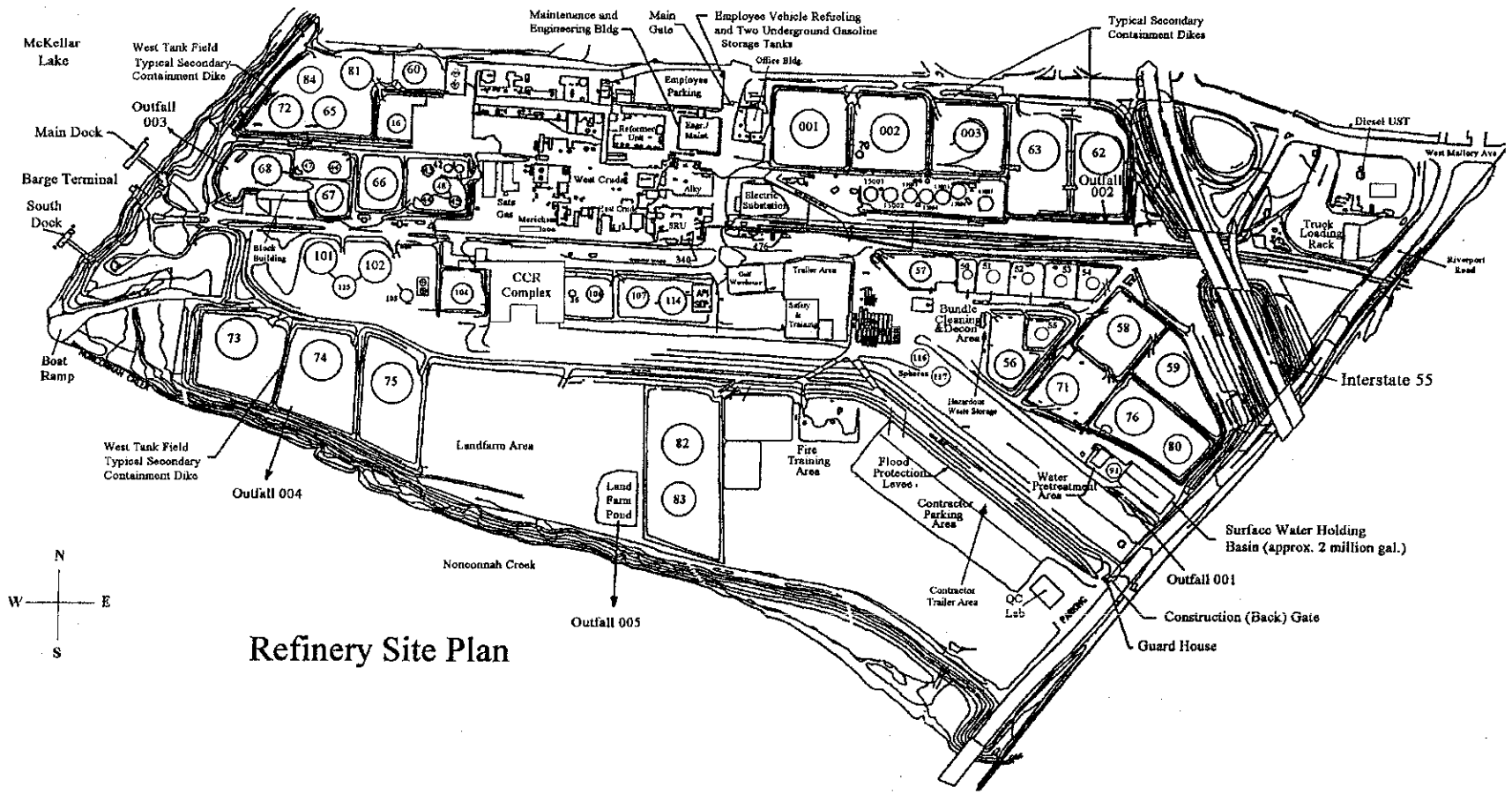
1. BP Oil Pipeline Co. owns this building.

APPENDIX A
REFINERY DESCRIPTIONS

MEMPHIS REFINERY

The refinery, currently owned or operated by The Premcor Refining Group Inc., located at 543 W. Mallory Avenue in Memphis, Tennessee. The refinery is located on approximately 250 acres and is bordered by Martin Luther King Park to the north, McKellar Lake to the west, Nonconnah Creek to the south and Interstate 55 to the east as shown generally in the attached plot diagram.

MEMPHIS REFINERY PLOT PLAN



Refinery Site Plan

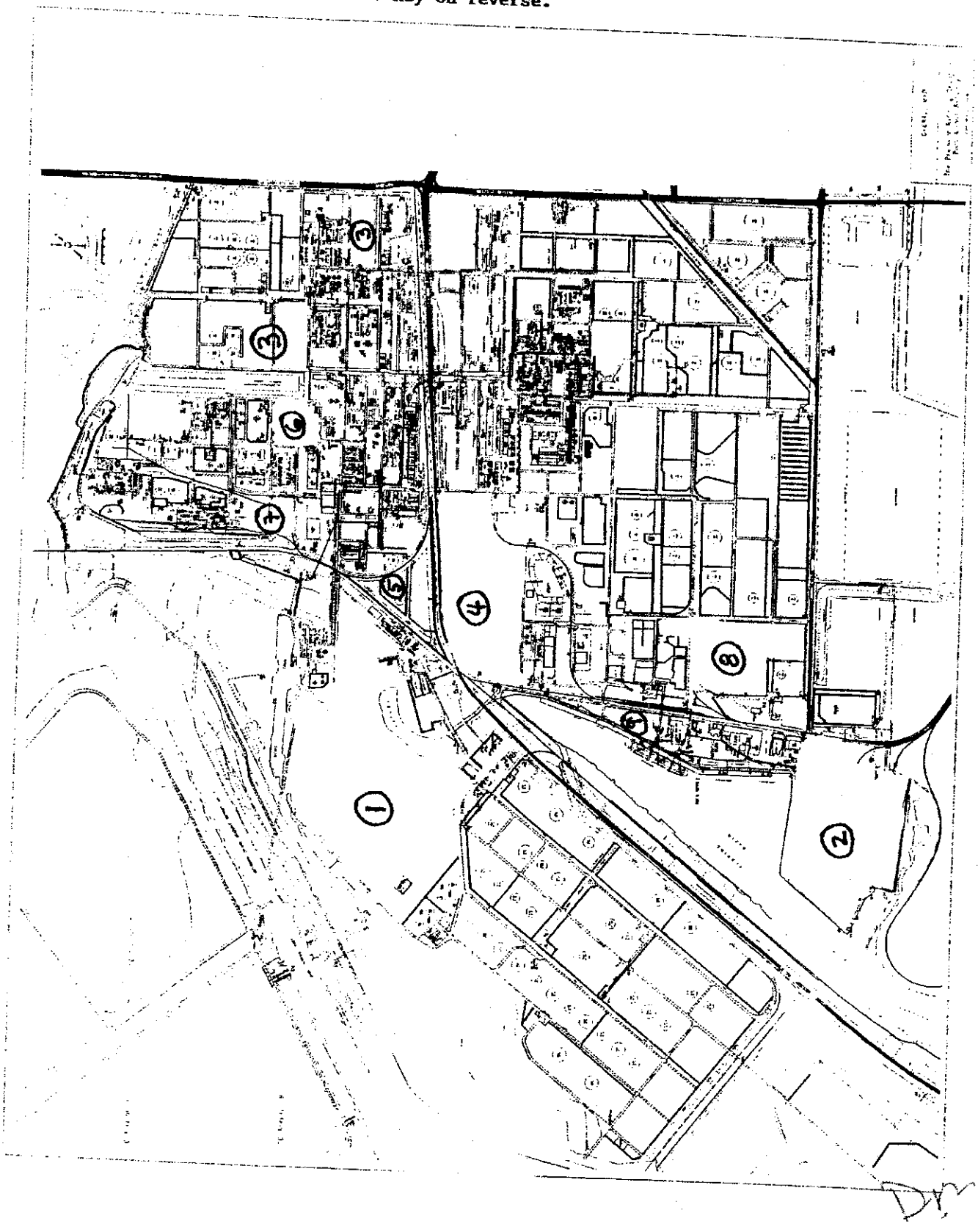
APPENDIX A
REFINERY DESCRIPTIONS

PORT ARTHUR REFINERY

The refinery, currently owned and operated by The Premcor Refining Group Inc., located in Port Arthur Texas, approximately 85 miles east of Houston. The address of the refinery is 1801 South Gulfway Drive, Port Arthur, Texas. The refinery site consists of approximately 3,840 acres and approximately 10 miles north of the Gulf of Mexico as shown generally in the attached plot diagram, but excludes third party facilities by Chevron or ConocoPhillips Chemicals.

PORT ARTHUR REFINERY

* See Key on reverse.



Key to Facilities Not Owned by Premcor
Port Arthur Refinery

1. Chevron Phillips Chemical Company assets (including Tank Nos. 2556, 2557 and 2558; process units; and cooling towers)

2. Chevron Marketing assets

3. Air Products assets

4. Chevron Phillips Chemical Company assets (Tank Nos. 800, 804, 809, 810, 822, 834, 837, 851, 866, 872, and 938)

5. Chevron Phillips Chemical Company Tank No. 925

6. Chevron Phillips Chemical Company assets (Tank Nos. 2414, 2415, 2416, 2417, 2421, 2422, 2424, 2425 and 2426)

7. Chevron Phillips Chemical Company assets

8. Chevron Marketing assets (Tank Nos. 9, 16, 17, 22, 24, 112, 116, and 117)

9. Chevron Phillips Chemical Company HVRU (Hydrocarbon Vapor Recovery Unit) 8841

Note - other assets located at Port Arthur that are not owned by Premcor are as follows: Chevron Marketing assets (Tank Nos. 29, 34, 197, and 198) and Chevron Phillips Chemical Company assets (Tank Nos. 2112, 2135, 2158, 2176, 2177, 2589, 2597, and 2598)

APPENDIX B

Initial Inventory of Covered Heaters and Boilers

Refinery	Source ID	Source Name/Description	Capacity, MMBtu/hr (HHV)	Capacity Basis	Permitted NOx Limit, lb/MMBtu	NOx CEMS?
Memphis	P021					
Memphis						
Memphis						
Memphis						
Memphis						
Memphis	P003					
Memphis	P010A					
Memphis	P010B					
Memphis	P017					
Memphis	P005					
Memphis	P015					
Memphis	P006					
Memphis	P033					
Memphis	P037					
Memphis	P013					
Memphis						
Lima	B001					
Lima	B002					
Lima	B003					
Lima	B004					
Lima	B005					
Lima	B006					
Lima	B007					
Lima	B008					
Lima	B009					
Lima	B016					
Lima	B022					
Lima	B024					
Lima	B026					
Lima	B027					
Port Arthur	AVU-146-H1					
Port Arthur	AVU-146-H2					
Port Arthur						
Port Arthur	GFU-241-H1					
Port Arthur	GFU-242-H1					
Port Arthur	GFU-243-					

	H1
Port Arthur	HFAU-443-H
Port Arthur	DCU-843-H1
Port Arthur	DCU-843-H2
Port Arthur	DCU-843-H3
Port Arthur	HCU-942-H1
Port Arthur	HCU-942-H2
Port Arthur	CRU-1344H1
Port Arthur	CRU-1344H2
Port Arthur	BH15-41
Port Arthur	BH16-31
Port Arthur	BH16-32
Port Arthur	BH16-33

*This table includes existing heaters and boilers as of 3/1/2006 with a capacity greater than 40 MMBtu/hr (HHV).

This data is Confidential Business Information

APPENDIX C
Initial FCCU Annual Maximum Coke Burn Rates

Refinery	Annual FCCU Maximum Coke Burn, lb/hr
Memphis	
Lima	
Port Arthur	

This data is Confidential Business Information

APPENDIX D

ALTERNATIVE MONITORING PLAN
for NSPS Subpart J Refinery Fuel Gas

Conditions for Approval of the Alternative Monitoring Plan for Miscellaneous Refinery Fuel Gas Streams

Refinery fuel gas streams/systems eligible for the Alternative Monitoring Plan (AMP) should be inherently low in H_2S content, and such H_2S content should be relatively stable. The refiner requesting an AMP should provide sufficient information to allow for a determination of appropriateness of the AMP for each gas stream/system requested. Such information should include, but need not be limited to:

- A description of the gas stream/system to be considered including submission of a portion of the appropriate piping diagrams indicating the boundaries of the gas stream/system, and the affected fuel gas combustion device(s) to be considered and an identification of the proposed sampling point for the alternative monitoring;

- A statement that there are no crossover or entry points for sour gas (high H_2S content) to be introduced into the gas stream/system. (This should be shown in the piping diagrams);

- An explanation of the conditions that ensures low amounts of sulfur in the gas stream (i.e., control equipment or product specifications) at all times;

- The supporting test results from sampling the requested gas stream/system using appropriate H_2S monitoring (i.e., detector tube monitoring following the Gas Processor Association's: Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision), at minimum:

  - for frequently operated gas streams/systems - two weeks of daily monitoring (14 samples);

  - for infrequently operated gas streams/systems, 7 samples shall be collected unless other additional information would support reduced sampling.

  Note: All samples are grab samples.

- A description of how the two weeks (or seven samples for infrequently operated gas streams/systems) of monitoring results compares to the typical range of H_2S concentration (fuel quality) expected for the gas stream/system going to the affected fuel gas combustion device. (e.g., The two weeks of daily detector tube results for a frequently operated loading rack included the entire range of products loaded out, and, therefore, should be representative of typical operating conditions affecting H_2S content in the gas stream going to the loading rack flare);
- Identification of a representative process parameter that can function as an indicator of a stable and low H_2S concentration for each fuel gas stream/system, (e.g., review of gasoline sulfur content as an indicator of sulfur content in the vapors directed to a loading rack flare);

- Suggested process parameter limit for each stream/system, the rationale for the parameter limit and the schedule for the acquisition and review of the process parameter data. The refiner will collect the proposed process parameter data in conjunction with the testing of the fuel gas stream's stable and low H_2S concentration.

The following shall be used for measuring H_2S in fuel gas within these types of AMPs unless the refiner requests, in writing, for approval of an alternative methodology:

- Conduct H_2S testing using detector tubes ("length-of-stain tube" type measurement);
- Detector tube ranges 0-10/0-100 ppm (N =10/1) shall be used for routine testing; and
- Detector tube ranges 0-500 ppm shall be used for testing if measured concentration exceeds 100 ppm H_2S.

Data Range and Variability Calculation and Acceptance Criteria

For each step of the monitoring schedule, sample range and variability will be determined by calculating the average plus 3 standard deviations for that test data set.

- If the average plus 3 standard deviations for the test data set is less than 81 ppm H_2S, the sample range and variability are acceptable and the refiner can proceed to the next step of the monitoring schedule.

  Note: 81 ppm is one-half the maximum allowable fuel gas standard under NSPS Subpart J, and the Agency believes that using 81 ppm acceptance criteria provides a sufficient margin for ensuring that the emission limit is not exceeded under normal operating conditions.

- If the data shows an unacceptable range and variability at any step (the average plus 3 standard deviations is equal to or greater than 81 ppm H_2S), then move to Step 7. Agency approval is required to proceed to the next step if the average plus 3 standard deviations is between 81 ppm and 162 ppm H_2S. As an example, approval may be granted based on a review of the test data and any pertinent information which demonstrates that sample variability during the test period was due to unusual circumstances. Supplemental test data may be taken to demonstrate that process variability is within the plan requirements. Data may be removed from the variability calculations for cause after agency approval.
- For Steps 3 and 4, if the data shows an unacceptable range and variability (the average plus 3 standard deviations is equal to or greater than 81 ppm H_2S), the source will drop back to the previous step's monitoring schedule.
- If at any time, one detector tube sample value is equal to or greater than 81 ppm H2S, then begin sampling as specified in Step 6. Note: Standard deviation cannot be calculated for a data set containing one point.

Monitoring Schedule for Approved AMPs

For gas streams which must meet product specifications for sulfur content, one time only detection tube sampling along with a certification that the gas stream is subject to product or pipeline specifications is sufficient for the AMP. If the gas stream composition changes (i.e., new gas sources are added), or if the gas stream will no longer be required to meet product or pipeline specifications, then the gas stream must be resubmitted for approval under the AMP.

The following are examples of streams needing one time only monitoring:

- Certified commercial grade natural gas;
- Certified commercial grade LPG;
- Certified commercial grade hydrogen;
- Gasoline vapors from a loading rack that only loads gasoline meeting a product specification for sulfur content.

For other gas streams, the H_2S content of each refinery fuel gas stream/system with an approved AMP shall be monitored per the following schedule:

Step 1:

The refiner will monitor the selected process parameter for each stream/system, according to the established process parameter monitoring or review schedule approved by the agency in the AMP, and at times when conducting H_2S detector tube sampling.

Step 2:

The refiner will conduct random detector tube sampling twice per week for each stream/system for a period of six months (52 samples). For fuel gas streams infrequently generated and combusted in affected fuel gas combustion devices (i.e., less frequent than bi-weekly), detector tube samples shall be taken each time the fuel gas stream is generated and combusted. A total of at least 24 samples shall be collected for infrequently generated gas streams. Monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting H_2S testing. Move to Step 3 if the calculated range and variability of the data meets the established acceptance criteria. Submit test data (raw measurements plus calculated average and variability) to the agency quarterly.

Step 3:

The refiner will conduct random H_2S sampling once per quarter for a period of six quarters (6 samples) with a minimum of 1 month between samples. A minimum of 9 samples are required for infrequently generated and combusted fuel gas streams before proceeding to Step 4. Continue to monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting H_2S testing. Move to Step 4 if the calculated range and variability of the data meets the established acceptance criteria. Submit test data (raw measurements plus calculated average and variability) to the agency quarterly.

Step 4:

The refiner will conduct random H_2S sampling twice per year for a period of two years (4 samples); sample randomly in the 1st and 3rd quarters with a minimum or 3 months between samples. Continue to monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting H_2S testing. Move to Step 5 if the calculated range and variability of the data meets the established criteria. Submit test data (raw measurements plus calculated average and variability) to the agency semiannually.

Step 5:

The refiner will continue to conduct testing on semi-annual basis. Testing is to occur randomly once every semiannual period with a minimum of 3 months between samples. Continue to monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting H_2S testing. If any one sample is equal to or greater than 81 ppm H_2S, then proceed to the sampling specified in Step 7. Note: Standard deviation cannot be calculated for a data set containing one point.

Step 6:

If, at any time, the selected process parameter data indicates a potential change in H_2S concentration, or a single detector tube sample value is equal to or greater than 81 ppm H_2S, then the fuel gas stream shall be sampled with detector tubes on a daily basis for 7 days (or for infrequently generated gas streams - 7 samples during the same period of an indicated change in H_2S concentration, or as otherwise approved by the agency). If the average detector tube result plus 3 standard deviations for those seven samples is less than 81 ppm H_2S, the date and value of change in the selected process parameter indicator and the sample results shall be included in the next quarterly report, and the refiner shall resume monitoring in accordance with the schedule of the current step. If the average plus 3 standard deviations for those seven samples is equal to or greater than 81 ppm H_2S, sampling shall follow the requirements of Step 7.

Step 7:

If sample detector tube data indicates a potential for the emission limit to be exceeded (the average plus 3 standard deviations is equal to or greater than 81 ppm H_2S), as determined in the Data Range and Variability Calculation and Acceptance Criteria or in Step 6, the refiner shall notify the agency of those results before the end of the next business day following the last sample day. The fuel gas stream shall subsequently be tested daily for a two week period (or 14 samples during the same event or as otherwise approved by the agency for infrequently generated gas streams). After the two week period is complete, sampling will continue once per week, until the agency approves a revised sampling schedule or makes a determination to withdraw approval of the gas stream/system from the AMP. Note: At any time, a detector tube value in excess of the 162 ppm limit is evidence that the emission standard has been exceeded.

General Provisions of Approved AMPs

Upon agency request, the refiner shall conduct a test audit for any gas stream with an approved AMP. The audit shall consist of daily detector tube samples collected over a one week period (7 samples). For fuel gas streams infrequently generated and combusted in affected fuel gas combustion devices, an audit shall consist of 3 consecutive sampling events. (e.g., Rail loading may occur once per month, an audit would consist of 3 consecutive loading events.) The United States Environmental Protection Agency, with due notice, reserves the right to withdraw approval of the AMP for any gas stream/system.

The source shall keep records of the H_2S detector tube test data and the representative process parameter data and fuel source for at least two years.

If a new fuel gas stream is introduced into a fuel gas stream with an approved AMP, the refiner shall again apply for an AMP and repeat Steps 1 - 5.

Example:

An AMP Application for a Hydrogen Plant PSA Off-Gas Stream Combusted Exclusively in the Hydrogen Plant Process Heater:

Process Description

Hydrogen production for the refinery by the steam methane reforming process. CO_2 is the primary impurity in the hydrogen produced; small amounts of CO and methane are also present. Unpurified hydrogen is passed over molecular sieve absorbent beds to remove these impurities. The off gas from regeneration of the absorbent beds is called PSA off-gas. It is sent to the hydrogen plant heater to recover heat and control CO emissions.

Piping Diagrams

Piping diagrams should be supplied to show monitoring location and to demonstrate that there is no potential for cross over or entry points for sour gas.

Basis for PSA Off-Gas Low H_2S Content

Since PSA off-gas is a byproduct of hydrogen purification, any H_2S in the PSA purge gas must come from the hydrogen unit feed. Levels of H_2S in the PSA gas are negligible because H_2S must be controlled to prevent
deactivation of the unit's catalyst

H_2S is a permanent catalyst poison. The hydrogen unit has 2 scrubbers to remove H_2S from the feed gas to protect the unit's catalyst from H_2S poisoning. The scrubbers are operated in series. The lead scrubber must exhibit at least a 70% reduction in H_2S content. If not, the scrubber is taken off line and the absorbent is replaced. After the absorbent is replaced, the scrubber is placed on line as the second scrubber in series. This maximizes the amount of H_2S removal and assures maximum scrubbing potential when one scrubber is off line for absorbent replacement.

Process Parameter Monitoring and Suggested Process Parameter Limit

Operation of the scrubbers is checked on a monthly basis with detector tubes. The feed gas H_2S content is measured at the inlet and outlet of the lead scrubber. If natural gas is used as hydrogen plant feed; both readings are below the 1 ppm detection limit. If refinery fuel gas is the feed gas, 30 ppm to 40 ppm H_2S is normally detected at the inlet. A lead scrubber outlet reading of 10 -12 ppm H_2S would trigger absorbent replacement. The suggested process parameter limit is 20 ppm H_2S at the lead H_2S absorber outlet. Absorber outlet H_2S measurements will be taken in conjunction with the PSA gas measurements during Steps 2 and 3.

APPENDIX E
Use of SO_2 Reducing Catalyst Additives to Reduce SO_2 at the Lima Refinery

This program to reduce SO_2 emissions at the Lima FCCU shall consist of a one-year "ramp-up" period and a demonstration period to establish appropriate SO_2 concentration based emission limits for the FCCU at a 10 weight % reducing catalyst additive rate.

1. **Definitions**
   a. "Baseline Total Catalyst Addition Rate" shall mean the daily average Total Catalyst, in pounds per day, added to an FCCU.
   b. "Pollutant Reducing Catalyst Additive" shall mean a SO_2 Reducing Catalyst Additive.
   c. "SO_2 Reducing Catalyst Additive" shall mean a catalyst additive that is introduced to an FCCU to reduce SO_2 emissions by reduction and adsorption.
   d. "Total Catalyst" shall mean all forms of catalyst added to the FCCU, including but not limited to base catalyst, equilibrium catalyst, and pollutant reducing catalyst.
   e. "Total Catalyst Addition Rate" shall mean the Total Catalyst added to an FCCU in pounds per day.
   f. "Weight % Pollutant Reducing Catalyst Additive Rate" shall mean:

$$\frac{\text{Amount of Pollutant Reducing Catalyst Additive in Pounds per Day}}{\text{Baseline Total Catalyst Addition Rate}} \times 100\%$$

2. **SO_2 Reducing Catalyst Additives – Selection**
   a. Within fifteen (15) days of the Date of Lodging, Premcor will select one of the EPA approved SO_2 reducing catalyst additives and submit a notification in writing to EPA as to the selected SO_2 reducing catalyst additive. This catalyst additive will be used for the duration of this protocol.
3. **SO_2 Reducing Catalyst Additives – "Ramp-Up" Period**
   a. Within thirty (30) days of the Date of Lodging, Premcor shall commence or continue use of the selected SO_2 reducing catalyst additive at the Lima FCCU.
   b. By no later than 12/31/2007, Premcor shall achieve a daily Total Catalyst Addition Rate for SO_2 reducing catalyst of at least additive addition rate of 10 weight %.
4. **SO_2 Reducing Catalyst Additives – Demonstration.**
   a. During a consecutive 12 to 24 month period (the "demonstration period") between 12/31/2007 and 12/31/2010, Premcor shall commence and complete a demonstration of the EPA-approved SO_2 reducing catalyst additive at a 10 weight % addition rate. During the period between

12/31/2007 and the end of the demonstration period, Premcor shall both physically add SO_2 reducing catalyst additive at a 10 weight % addition rate and operate the FCCU in a manner that minimizes SO_2 emissions, to the extent practicable without interfering with conversion, or processing rates, provided such cannot be reasonably compensated for by adjustment of other operating parameters.

b. Within two months of the end of the demonstration period, Premcor shall submit to EPA a report of the results of the demonstration period ("the "Demonstration Report"). The Demonstration Report shall include at a minimum the following information:

1. Regenerator flue gas temperature;
2. FCCU coke burn rate in pounds per hour;
3. FCCU feed rate in barrels per day;
4. FCCU feed API gravity;
5. Estimated percentage and, where available, actual percentage of each type of FCCU feed component (*i.e.* atmospheric gas oil, vacuum gas oil, etc.);
6. Estimated percentage, and where available, actual percentage by volume of the FCCU feed that is hydrotreated;
7. Total catalyst addition rate and catalyst circulation rates;
8. FCCU conversion rate;
9. SO_2 Reducing Catalyst Additive and addition rates, conventional combustion promoter addition rates, and/or Low NO_x Combustion Promoter addition rates in pounds per day;
10. Hourly and daily SO_2, NO_x, CO and O_2 concentrations; and
11. Any other parameters that Premcor identifies as important before the end of the demonstration period.

c. At any time prior to the deadline for submission of the Demonstration Report, Premcor may notify EPA that it agrees to comply with SO_2 emission limits of 25 ppmvd @ 0% O_2 on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis each at 0% O_2 for the Lima FCCU. If Premcor makes such a notification, the remaining requirements of this appendix for the Lima FCCU shall no longer apply and the limits shall become immediately effective.

5. <u>Establishing SO_2 Emissions Limits.</u>

a. Except where Premcor has notified EPA of its intent to comply with SO_2 emission limits of 25 ppmvd on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis, at 0% oxygen, Premcor will propose, in the Demonstration Report, final 7-day rolling average and

365-day rolling average concentration-based (ppmvd) SO_2 emission limits, at 0% oxygen, for the Lima FCCU. Premcor will propose a 7-day rolling average concentration limit that will be numerically twice the concentration of the 365-day rolling average concentration limit. Premcor may propose alternative emissions limits to be applicable during startup of the FCCU, shutdown of the FCCU, or other alternative operating scenarios. Premcor will comply with the emission limits it proposes for the Lima FCCU beginning immediately upon submission of the Demonstration Report. Premcor will continue to comply with these limits unless and until Premcor is required to comply with the emissions limits set by EPA pursuant to the paragraphs below. Upon request by EPA, Premcor will submit any additional, reasonably available data that EPA determines it needs to evaluate the demonstration.

1. EPA will use the data collected during the demonstration period, as well as all other available and relevant information, to establish limits for SO_2 emissions for the Lima FCCU. EPA will establish a 365-day rolling average concentration-based (ppmvd) SO_2 emission limit at 0% oxygen. EPA will determine the limit based on: (a) the level of performance during the demonstration period; (b) a reasonable certainty of compliance; and (c) any other available and relevant information. EPA will also establish a 7-day rolling average concentration limit that will be numerically twice the concentration of the 365-day rolling average concentration limit.
2. EPA will notify Premcor of its determination of the concentration-based SO_2 emissions limit and averaging times for each FCCU. EPA may establish alternative emissions limits to be applicable during startup of the FCCU, shutdown of the FCCU, or other alternative operating scenarios. If EPA agrees with Premcor's proposed limits, Premcor will continue to comply with these limits. If EPA proposes different limits that Premcor does not dispute within thirty (30) days of receiving notification from EPA, Premcor will comply with the EPA-established limits by no later than thirty (30) days after notice. If Premcor disputes the EPA-established limits, Premcor will invoke the dispute resolution provisions of this Decree by no later than thirty (30) days after EPA's notice of the limits. During the period of dispute resolution, Premcor will continue to add SO_2 Reducing Catalyst Additives at the 10 weight % rate.
3. SO_2 emissions during periods of startup, shutdown, or Malfunction of an FCCU controlled by catalyst additives, or during periods of Malfunction of a Pollutant

Reducing Catalyst Additive system will not be used in determining compliance with the short-term SO_2 emission limits established pursuant to this appendix, provided that during such periods Premcor implements good air pollution control practices to minimize SO_2 emissions.

Appendix F

Logic Diagram for Paragraphs 250 – 253

ALL ACID GAS (AG) FLARING/TAIL GAS (TG) INCIDENTS
PORT ARTHUR HYDROCARBON FLARING (HCF) INCIDENTS

↓

250

Was the Root Cause:

- Failure to follow written procedures? Or
- Error from careless operation by the personnel charged with responsibility for the SRPs, TGU, or Upstream Process Units? Or
- Equipment failure due to failure by Valero to operate and maintain that equipment in a manner consistent with good engineering practices?
- For Port Arthur HCF Incidents, one of the root causes listed at 250.d. once the corresponding corrective action has been completed pursuant to Paragraph 245a?
- For Port Arthur AGF Incidents, one of the root causes listed at 250.e. once the corresponding corrective action has been completed pursuant to Paragraph 228?

Yes → Paragraph 260(a) applies unless Valero can establish a defense under the applicable provisions of Paragraph 253.

No ↓

251

Did the AG Flaring, TG Incident or PA Hydrocarbon Flaring Incident:

- Result in emissions of SO2 at a rate greater than 20 lbs/hr continuously for three consecutive hours or more and Valero did not follow the PMO Plan (for AG Flaring and TG Incident only)? Or
- Cause the total number of AG Flaring, TG Incidents in a rolling 12 month period to exceed 5? Or
- For Port Arthur HCF Incidents, cause the total number of HCF Incidents in a rolling 12 month period to exceed 10 for the first 3 years (or exceed 5 in a rolling 12 month period thereafter)?

Yes → Paragraph 260(a) applies unless Valero can establish a defense under the applicable provisions of Paragraph 253.

No ↓

252b

Is this the first time for the Root Cause of this AG Flaring, TG Incident or PA HCF Incident?

No → 252a

Is the Root Cause on the list of agreed-upon Malfunctions?

Yes → STOP

No → Paragraph 260(a) applies with the caveats set forth in Paragraph 252c, and unless Valero can establish a defense under the applicable provisions of Paragraph 253.

Yes ↓

Was the Root Cause sudden, infrequent, and not reasonably preventable through the exercise of good engineering practice?

No → Implement Corrective Action pursuant to Paragraph 245.

Yes ↓

Establish and update a list of agreed-upon Malfunctions → STOP

APPENDIX G - Reserved

APPENDIX H – Reserved

APPENDIX I

Sustainable Skip Period Program

The following skip rules will apply in lieu of 40 C.F.R. § 63.168(d)(2)-(4) and 40 C.F.R. § 60.483-2(b)(2)-(3).

1. Premcor may move to less frequent monitoring on a unit-by-unit basis using the following criteria:

   a. At process units that have less than 2 percent leaking valves for 2 consecutive months, the owner or operator shall monitor each valve once every quarter, beginning with the next quarter.

   b. After 2 consecutive quarterly leak detection periods with the percent of leaking valves less than or equal to 1 percent, the owner or operator may elect to monitor each valve once every 2 quarters.

   c. After 3 consecutive semi-annual leak detection periods with the percent of valves leaking less than or equal to 0.5 percent, the owner or operator may elect to monitor each valve once every 4 quarters.

2. Premcor must return to more frequent monitoring on a unit-by-unit basis using the following criteria:

   a. If a process unit on a quarterly, semi-annual or annual monitoring schedule has a leak percentage greater than or equal to 2 percent in any single detection period, the owner or operator shall monitor each valve no less than every month, but can again elect to advance to less frequent monitoring pursuant to the schedule in 1, above.

   b. If a process unit on a semi-annual or annual monitoring schedule has a leak percentage greater than or equal to 1 percent, but less than 2 percent in any single detection period, the owner or operator shall monitor each valve no less than quarterly, but can again elect to advance to less frequent monitoring pursuant to the schedule in 1, above.

   c. If a process unit on an annual monitoring schedule has a leak percentage greater than or equal to 0.5 percent but less than 1 percent in any single detection period, the owner or operator shall monitor each valve no less than semi-annually, but can again elect to advance to less frequent monitoring pursuant to the schedule in 1, above.

APPENDIX J – Reserved

APPENDIX K
Acid Gas Flaring Devices

Refinery	Acid Gas Flaring Device
Lima	SRU Acid Gas Flare
	LIU Flare
Memphis	Acid Gas Flare
	North Flare
	South Flare
Port Arthur	Flare No. 5
	Flare No. 12

APPENDICES L & M – Reserved

APPENDIX N
Hydrocarbon Flaring Devices

Refinery	Hydrocarbon Flare Name
Lima	FCC Flare
	LIU Flare
Memphis	North Flare
	South Flare
Port Arthur	Flare No. 13
	Flare No. 15
	Flare No. 18
	Flare No. 19
	Flare No. 20
	Flare No. 22
	Flare No. 23
	Flare B-103

APPENDIX O
Specific Heater and Boiler NSPS Schedule

Refinery	Heater/Boiler Name	NSPS Compliance Date
Lima	B004 (Crude Heater)	12/31/2009
	B001 (Vac II Heater)	12/31/2009
	B008 (HDS Heater)	12/31/2009
	B006 (U/F Heater)	12/31/2009
	B005 (Reformate Splitter Heater)	12/31/2009
	B007 (Reformate Regen. Heater)	12/31/2009
	B002 (Iso Heater)	12/31/2009
	B003 (Iso Heater)	12/31/2009

APPENDIX P
Reserved

APPENDIX Q

Resolved Enforcement Matters

With respect to the enforcement matters identified below, entry of this Addendum shall resolve all civil and administrative liability for the matters identified, alleged and/or resolved (in the manner and to the extent set forth herein and in the referenced enforcement documents but only to the extent Premcor is in continuing compliance with such post-lodging compliance dates), from the date that the claims accrued up to the Date of Lodging or the relevant Post-Lodging Compliance Date(s), if applicable.

I. LIMA REFINERY

A. Notices of Violation

Date	Type	Description of Alleged Violation
06/28/05	NOV	All potential violations identified in EPA's June 28, 2005 NOV arising from NEIC Inspections conducted 10/29/01 - 11/2/01 and 11/12/01 - 11/16/01 (and described in EPA-5-05-OH-16; *Proceedings Pursuant to Section 113 (a) (1) of the Clean Air Act*); including, but not limited to, LDAR and tank seal violations.
07/18/05	NOV/HPF	All potential violations identified in Ohio EPA's July 18, 2005 NOV arising from the PO25 Stack Test of 5/18/05; including, but not limited to, thermal oxidizer SO_2 emissions violations.
10/18/05	NOV/HPF	All potential violations identified in Ohio EPA's October 18, 2005 NOV arising from the PO25 Stack Test of 9/7/05; including, but not limited to, thermal oxidizer SO_2 emissions violations.
07/18/06	NOV/HPF	All potential violations identified in Ohio EPA's July 18, 2006 NOV arising from the PO25 Stack Tests on 5/25/06 and 5/26/06; including, but not limited to, thermal oxidizer SO_2 emissions violations.

B. Prior 114 Requests

Date	Description
12/07/00	All potential violations with respect to the Lima Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's December 7, 2000 Section 114 Information Request
10/22/04	All potential violations with respect to the Lima Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's October 22, 2004 Section 114 Information Request.
01/24/05	All potential violations with respect to the Lima Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's January 24, 2005 Section 114 Information Request

C. Other Matters

Inspections / Audits

1. All potential violations identified in or relating to the Ohio EPA Annual Air Inspections on June 6, 2002, May 20, 2003, May 19, 2004, May 4, 2005, and June 27, 2006.

Reporting

2. All potential violations disclosed in Malfunction Reports submitted to the Ohio EPA from January 1, 2001 through January 31, 2007.
3. All potential violations relating to Thermal Oxidizer Performance Tests; including the August 14, 2002 P025 thermal oxidizer NOx violation and related correspondence with the Ohio EPA, and the March 27, 2003 self disclosure to the Ohio EPA regarding NSPS J for NESHAPs gas.
4. All potential violations disclosed in Sulfur and Ash Reports submitted to the Ohio EPA from January 1, 2001 through January 31, 2007.
5. All potential violations disclosed in Excess Emissions Reports submitted to the Ohio EPA on from January 1, 2001 through January 31, 2007.
6. All potential violations disclosed in Benzene Transfer Operations Reports submitted to the U.S. EPA on March 5, 2001, June 4, 2001, December 3, 2001, June 4, 2002, December 3, 2002, March 3, 2003, June 4, 2003, September 3, 2003, December 1, 2003, March 1, 2004, and June 2, 2004.
7. All potential violations disclosed in Title V and PTI Deviation Reports submitted to the Ohio EPA from January 1, 2001 through January 31, 2007.

Miscellaneous

8. All potential violations relating to the alleged violations on January 22, 2001 and March 29, 2001 involving CEMS downtime at P002, P011 & P015 and P010.
9. All potential violations identified in and relating to the Follow-up Report of Malfunctions of Air Pollution Control Equipment submitted on October 9, 2006; including, but not limited to, the breakdown and repair of Tank 84, Tank 79, Tank 327, Tank 207, Tank 214, Tank 323, Tank 244, Tank 28, Tank 238, and Tank 216.

II. MEMPHIS REFINERY

A. Notices of Inquiry/Violation

Date	Type	Description of Alleged Violation
09/14/05	NOI	All potential violations identified in MSCHD's September 14, 2005 NOI arising from, but not limited to, excess $H2_S$ in fuel gas on 4/26/05 and 6/12/05. (MSCHD)
01/26/05	NOI	All potential violations identified in MCSHD's January 26, 2005 NOI arising from, but not limited to, exceedances of SO_2 NSPS at SRU Incinerator on 8/24/04 due to power outage. (MSCHD)

B. Prior 114 Requests

Date	Description
07/23/99	All potential violations with respect to the Memphis Refinery relating to information sought by EPA, and disclosed by Premcor and/or Williams Refining, LLC in response to EPA's July 23, 1999 Section 114 Information Request to Williams Refining, LLC.
06/03/03	All potential violations with respect to the Memphis Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's June 3, 2003 Section 114 Information Request to Premcor.
10/22/04	All potential violations with respect to the Memphis Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's October 22, 2004 Section 114

Date	Description
	Information Request to Premcor.
01/24/05	All potential violations with respect to the Memphis Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's January 24, 2005 Section 114 Information Request to Premcor.

C. Other Matters

Inspections / Audits

1. All potential violations identified in or relating to the USEPA NEIC - LDAR Compliance Inspection conducted March 26-29, 2001.
2. All potential violations identified in or relating to the USEPA Multimedia Site Inspection conducted on October 21-24, 2002, including information identified by EPA and/or disclosed by Premcor during the inspection.
3. All potential violations identified in or relating to the MSCHD Annual Inspection conducted on June 23, 2004 and June 30, 2005; including, but not limited to, issues regarding the recalculation of the cooling tower VOC emissions using the "uncontrolled" AP-42 factor and re-submission of data.
4. All potential violations identified in or relating to the USEPA EPCRA Region IV Inspection conducted on June 8, 2006.

Reporting

5. All potential violations relating to the failure to provide a thirty day notification before a performance test on the Cat Gas Hydrotreater unit. Notification was provided on July 8, 2005 and the test was conducted on July 26, 2005.
6. All potential violations disclosed in Continuous Monitoring System and Data Assessment Reports from January 1, 2001 through January 1, 2007.

Miscellaneous

7. All potential violations relating to the use of an incorrect span range for the oxygen analyzer in the No. 1 SRU CEMS from October 17, 2000 through May 17, 2006.
8. All potential violations relating to any delay in implementing Alternate Monitoring Plan for opacity at the FCCU.
9. All potential violations resulting from miscalculations of storage tank maximum TVP exceedances prior to September 2006.
10. All potential violations relating to a failure to conduct annual RATA or quarterly certifications on the CEMS at the Truck Rack prior to December 31, 2006.

III. PORT ARTHUR REFINERY

A. Notice of Violation

Date	Type	Description of Alleged Violation
06/16/05	NOV	All potential violations identified in EPA's June 16, 2005 NOV relating to flare emissions, SRU discharges, flare opacity, unit operation, and/or release reporting to NRC, including any related federally-enforceable state law violations.

B. Prior 114 Requests

Date	Description
12/07/00	All potential violations with respect to the Port Arthur Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's January 7, 2000 Section 114 Information Request to Premcor.
08/15/2003	All potential violations with respect to the Port Arthur Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's August 15, 2003 Section 114 Information Request to Premcor.
10/22/04	All potential violations with respect to the Port Arthur Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's October 22, 2004 Section 114 Information Request to Premcor.
01/07/2003	All potential violations with respect to the Port Arthur Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's January 7, 2005 Section 114 Information Request to Premcor.
01/24/05	All potential violations with respect to the Port Arthur Refinery relating to information sought by EPA, and disclosed by Premcor in response to EPA's January 24, 2005 Section 114 Information Request to Premcor.

C. Other Matters

Inspections / Audits

1. All potential violations identified in and/or relating to the EPA visit on July 5, 2001 regarding sandblasting at Tank 151 (looked like vapor).
2. All potential violations relating to FCC ESP opacity exceedances from January 1, 2001 through December 31, 2005.

Reporting

3. All potential violations identified in deviations reported or matters identified in the Dock Title V Semi-Annual Reports submitted from January 1, 2001 through January 31, 2007, for matters covered by Paragraphs 344-348, 351 and 353-354 of this Addendum.

Miscellaneous

4. All potential violations arising from failure to report speciated emissions from 1/15/99 emissions event on DCU-84.
5. All potential violations arising from potential VOC emission exceedances on Tanks 283 and 284 because of marine vessel pumping rates from May 1998 through June 1998.

APPENDIX R

Mobile Source Provisions

1. As provided by Paragraph 354a, entry of this Addendum shall resolve all civil liability of Premcor for the following violations of 40 C.F.R. Part 80 identified during the EPA Fuels Regulation site audit at the Memphis, Port Arthur, and Lima refineries in February and March 2005:

   a. All potential violations of 40 C.F.R. § 80.69 (reformulated gasoline blendstock for oxygenate blending testing and fuel quality assurance requirements) at the Port Arthur refinery;
   b. All potential violations of 40 C.F.R. §§ 80.2(gg) & 80.101(i) (batch homogeneity sampling and testing) at the Port Arthur refinery;
   c. All potential violations of 40 C.F.R. §§ 80.8 & 80.101(i) (representative certification sampling) at the Port Arthur refinery;
   d. All potential violations of 40 C.F.R. § 80.46 (reformulated gasoline analysis for olefins and aromatics) at the Port Arthur refinery;
   e. All potential violations of 40 C.F.R. § 80.46 (Grabner RVP instrument calibration) at the Port Arthur refinery;
   f. All potential violations of 40 C.F.R. § 80.46 (distillation instrument calibration) at the Port Arthur refinery;
   g. All potential violations of 40 C.F.R. §§ 80.74(a) & 80.365 (Reid Vapor Pressure logbook/recordkeeping) at the Port Arthur refinery;
   h. All potential violations of 40 C.F.R. § 80.46 (distillation instrument calibration) at the Lima refinery;
   i. All potential violations of 40 C.F.R. §§ 80.2(gg) & 80.101(i) (batch homogeneity sampling and testing) at the Lima refinery;
   j. All potential violations of 40 C.F.R. §§ 80.8 & 80.101(i) (ASTM sampling procedures) at the Lima refinery;
   k. All potential violations of 40 C.F.R. § 80.46 (in-line sample blending sampling) at the Memphis refinery;
   l. All potential violations of 40 C.F.R. § 80.46 (Reid vapor aeration) at the Memphis refinery; and
   m. All potential violations of 40 C.F.R. § 80.46 (maintenance logs) at the Memphis refinery.

2 To increase awareness of obligations to comply with federal and state mobile source regulations, Valero has formed a Clean Fuels Implementation Team consisting of representatives from its affiliates and subsidiaries' organizations. A copy of the charter for the CFIT outlining current roles and responsibilities and membership is attached to this Appendix. For the duration of this Consent Decree, Valero shall continue to support and operate the CFIT. In addition, within 6 months of the date of lodging, Premcor shall prepare a report detailing its standard operating procedures for ensuring compliance with the 40 C.F.R. Part 80 fuel requirements (including laboratory quality control measures) at the Premcor refineries, including but not limited to compliance with the requirements identified in Paragraph 1 of this Appendix R. This report shall be submitted to:

Erv Pickell, Fuels Team Leader
USEPA Office of Mobile Sources
12345 West Alameda Parkway
Suite # 214
Lakewood, CO 80228

APPENDIX S

PREDICTIVE EMISSIONS MONITORING SYSTEMS FOR HEATERS AND BOILERS WITH CAPACITIES BETWEEN 150 AND 100 MMBTU/HR

A Predictive Emissions Monitoring Systems ("PEMS") is a mathematical model that predicts the gas concentration of NOx in the stack based on a set of operating data. Consistent with the CEMS data frequency requirements of 40 C.F.R. Part 60, the PEMS shall calculate a pound per million Btu value at least once every 15 minutes, and all of the data produced in a calendar hour shall be averaged to produce a calendar hourly average value in pounds per million Btu.

The types of information needed for a PEMS are described below. The list of instruments and data sources shown below represent an ideal case. However at a minimum, each PEMS shall include continuous monitoring for at least items 3-5 below. Premcor will identify and use existing instruments and refinery data sources to provide sufficient data for the development and implementation of the PEMS.

Instrumentation:

1. Absolute Humidity reading (one instrument per refinery, if available)
2. Fuel Density, Composition and/or specific gravity - On line readings (it may be possible if the fuel gas does not vary widely, that a grab sample and analysis may be substituted)
3. Fuel flow rate
4. Firebox temperature
5. Percent excess oxygen
6. Airflow to the firebox (if known or possibly estimated)
7. Process variable data - steam flow rate, temperature and pressure - process stream flow rate, temperature & pressure, etc.

Computers & Software:

Relevant data will be collected and stored electronically, using computers and software. The hardware and software specifications will be specified in the source-specific PEMS.

Calibration and Setup:

1. Data will be collected for a period of 7 to 10 days of all the data that is to be used to construct the mathematical model. The data will be collected over an operating range that represents 80% to 100% of the normal operating range of the heater/boiler;
2. A "Validation" analysis shall be conducted to make sure the system is collecting data properly;
3. Stack Testing to develop the actual emissions data for comparison to the collected parameter data; and
4. Development of the mathematical models and installation of the model into the computer.

The elements of a monitoring protocol for a PEMS shall include:

1. Applicability

a. Identify source name, location, and emission unit number(s);

b. Provide expected dates of monitor compliance demonstration testing.

2. Source Description

a. Provide a simplified block flow diagram with parameter monitoring points and emission sampling points identified (e.g., sampling ports in the stack);
b. Provide a discussion of process or equipment operations that are known to significantly affect emissions or monitoring procedures (e.g., batch operations, plant schedules, product changes).

3. Control Equipment Description

a. Provide a simplified block flow diagram with parameter monitoring points and emission sampling points identified (e.g., sampling ports in the stack);
b. List monitored operating parameters and normal operating ranges;
c. Provide a discussion of operating procedures that are known to significantly affect emissions (e.g., catalytic bed replacement schedules).

4. Monitoring System Design

a. Install, calibrate, operate, and maintain a continuous PEMS;
b. Provide a general description of the software and hardware components of the PEMS, including manufacturer, type of computer, name(s) of software product(s), monitoring technique (e.g., method of emission correlation). Manufacturer literature and other similar information shall also be submitted, as appropriate;
c. List all elements used in the PEMS to be measured (e.g., pollutant(s), other exhaust constituent(s) such as O_2 for correction purposes, process parameter(s), and/or emission control device parameter(s));
d. List all measurement or sampling locations (e.g., vent or stack location, process parameter measurement location, fuel sampling location, work stations);
e. Provide a simplified block flow diagram of the monitoring system overlaying process or control device diagram (could be included in Source Description and Control Equipment Description);
f. Provide a description of sensors and analytical devices (e.g., thermocouple for temperature, pressure diaphragm for flow rate);
g. Provide a description of the data acquisition and handling system operation including sample calculations (e.g., parameters to be recorded, frequency of measurement, data averaging time, reporting units, recording process);
h. Provide checklists, data sheets, and report format as necessary for compliance determination (e.g., forms for record keeping).

5. Support Testing and Data for Protocol Design

a. Provide a description of field and/or laboratory testing conducted in developing the correlation (e.g., measurement interference check, parameter/emission correlation test plan, instrument range calibrations);
b. Provide graphs showing the correlation, and supporting data (e.g., correlation test results, predicted versus measured plots, sensitivity plots, computer modeling development data).

6. Initial Verification Test Procedures

a. Perform an initial relative accuracy test (RA test) to verify the performance of the PEMS for the equipment's operating range. The PEMS must meet the relative accuracy requirement of the applicable Performance Specification in 40 C.F.R. Part 60, Appendix B. The test shall utilize the test methods of 40 CFR Part 60, Appendix A;
b. Identify the most significant independently modifiable parameter affecting the emissions. Within the limits of safe unit operation, and typical of the anticipated range of operation, test the selected parameter for three RA test data sets at the low range, three at the normal operating range and three at the high operating range of that parameter, for a total of nine RA test data sets. Each RA test data set should be between 21 and 60 minutes in duration;
c. Maintain a log or sampling report for each required stack test listing the emission rate;
d. Demonstrate the ability of the PEMS to detect excessive sensor failure modes that would adversely affect PEMS emission determination. These failure modes include gross sensor failure or sensor drift;
e. Demonstrate the ability to detect sensor failures that would cause the PEMS emissions determination to drift significantly from the original PEMS value;
f. The PEMS may use calculated sensor values based upon the mathematical relationships established with the other sensors used in the PEMS. Establish and demonstrate the number and combination of calculated sensor values which would cause PEMS emission determination to drift significantly from the original PEMS value.

7. Quality Assurance Plan

a. Provide a list of the input parameters to the PEMS (e.g., transducers, sensors, gas chromatograph, periodic laboratory analysis), and a description of the sensor validation procedure (e.g., manual or automatic check);
b. Provide a description of routine control checks to be performed during operating periods (e.g., preventive maintenance schedule, daily manual or automatic sensor drift determinations, periodic instrument calibrations);
c. Provide minimum data availability requirements and procedures for supplying missing data (including specifications for equipment outages for QA/QC checks);
d. List corrective action triggers (e.g., response time deterioration limit on pressure sensor, use of statistical process control (SPC) determinations of problems, sensor validation alarms);
e. List trouble-shooting procedures and potential corrective actions;
f. Provide an inventory of replacement and repair supplies for the sensors;
g. Specify, for each input parameter to the PEMS, the drift criteria for excessive error (e.g., the drift limit of each input sensor that would cause the PEMS to exceed relative accuracy requirements);
h. Conduct a quarterly electronic data accuracy assessment tests of the PEMS;
i. Conduct semiannual RA tests of the PEMS. Annual RA tests may be conducted if the most recent RA test result is less than or equal to 7.5%. Identify the most significant independently modifiable parameter affecting the emissions. Within the limits of safe unit operation and typical of the anticipated range of operation, test the selected parameter for three RA test data pairs at the low range, three at the normal operating range, and three at the high operating range of that parameter for a total of nine RA test data sets. Each RA test data set should be between 21 and 60 minutes in duration.

8. PEMS Tuning

a. Perform tuning of the PEMS provided that the fundamental mathematical relationships in the PEMS model are not changed.
b. Perform tuning of the PEMS in case of sensor recalibration or sensor replacement provided that the fundamental mathematical relationships in the PEMS model are not changed.